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ABSTRACT

This paper reports on a study conducted to collect the data pertaining to corporate libraries in the United States in order to provide a statistical profile of these special libraries. A review of the literature was performed. The researcher used the online "1996 Directory of Special Libraries and Information Centers," which lists 21,380 special libraries. Of these, 1,417 company libraries were analyzed to provide statistics for a comparison of founding date; gender of library supervisor; periodical subscriptions; computer automation; online network participation; and distribution of libraries by state. When possible this information was compared to available historical data. It was found that over 50% of the libraries were established after World War II. Since that time, collection size has evolved. Although monographs and company generated reports remain important, periodical subscriptions have risen slightly since the 1960s. At this time, computer automation and online databases are available at less than half of the libraries analyzed. Over seventy percent of library supervisors are female. Data are presented in 10 tables. Two appendices contain coding for profiles of corporate libraries; and five tables compiled by Anthony Kruzas. (Author/DLS)

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ED 423 909

Characteristics of Corporate Libraries

A Master's Research Paper submitted to the
Kent State University School of Library Science
in partial fulfillment of the requirements
for the degree Master of Library Science

by

Wendy Charny

December, 1997

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Abstract

Corporate libraries have existed for over one hundred years. When the Special Libraries Association was formed in 1909, they were among its members. To this day they remain affiliated with this group which also includes museums, history, art and religion libraries. Statistical surveys have analyzed early company libraries but there has been a gap in the literature since the 1960s. The 1996 Directory of Special Libraries and Information Centers lists 21,380 special libraries. Using the directory online, 1,417 company libraries were analyzed to provide statistics for a comparison of founding date, gender of library supervisor, distribution of libraries by state, periodical subscriptions, computer automation and online network participation. When possible this information has been compared to available historical data.

It was found that over fifty percent of the libraries were established after World War II. Since that time, collection size and type have evolved. Although monographs and company generated reports remain important, periodical subscriptions have risen slightly since the 1960s. At this time, computer automation and online databases are available at less than half of the libraries analyzed. Over seventy percent of library supervisors are female.

Master's Research Paper by

Wendy Charny

B. S., Rochester Institute of Technology, 1980

M. L. S., Kent State University, 1997

Approved by

Adviser_____ Date_____

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I. INTRODUCTION

The law library at the New England Life Insurance Company which was established in 1843 is usually credited with being the first corporate library.[1] Many other corporate libraries are also more than one hundred years old. When the Special Libraries Association was founded in 1909, there were fifty-six members. Five of these were classified as attached to a commercial or industrial firm and three were identified with newspapers and publishing companies. The remainder of the members was an aggregation of libraries representing trade associations and scientific societies, museums, state or federal agencies and public libraries. Since this time, special libraries have become equated most often with business organizations. Anthony Kruzas has published a characterization of these libraries based on information published before 1940.[2] There is a gap in the literature for current information of this nature.

The 1996 Directory of Special Libraries & Information Centers is a compilation of library types. It lists 21,380 libraries as special but within that number are included archives, art or religion libraries, and information centers or data centers maintained by government. Being included within such a large and diverse group, it is difficult to get a clear picture of corporate libraries and the work they do in the United States today. At this time, there is no source that characterizes only corporate or company libraries.

Information found in the directory for each member library varies. It may have as little as only a listing of the official name of the library along with its address. Additional information is

sometimes included providing the librarian's name, position, the number of professional and nonprofessional employees in the library, library automation including number, make and models of computers, services offered, network participation including provider name, and quantities and types of materials held (maps, a/v, photographs, monographs, serials, etc.). This information is available in both the print and online versions.

Purpose of the Study

The purpose of this report was to collect the data pertaining to corporate libraries in the United States in order to provide a statistical profile of these special libraries. This description was used to determine the average age, distribution, and holdings of corporate libraries. The data collected was compared with historical information on early corporate libraries to discover changes. Three research questions were attempted to be answered: 1.The location of the oldest libraries and newest libraries. It is suggested that the oldest libraries are located in the eastern part of the United States and most newer libraries will be found in states with the highest growth. 2. The distribution of corporate libraries by state remains similar to a 1940 historical distribution.[3] 3.Additionally, the distribution by type of corporate library remains similar to a 1957 historical distribution.[4]

Definitions of Terms

A corporate or business library is a library connected to a place of business located in the United States or its territories. It's goal is defined by the unit it serves rather than education or enlightenment. As such, it can be a part of a service industry such as a bank, law firm or hospital but the focus of this report is special libraries associated with manufacturing industries. These libraries have been segregated into thirteen groups: commercial banks, investment-banking firms, consulting and engineering firms, insurance companies, manufacturing companies- pharmaceutical, manufacturing companies-chemical, manufacturing companies-miscellaneous, public utility companies, merchandising firms, accounting firms, business services, entertainment, and undetermined commercial and industrial companies. A corporate library may be better defined by what it is not. It is not a public library, a part of a government, school or academic library.

II. REVIEW OF THE LITERATURE

The sources used for a literature search of this topic include Research Papers Database (KSU), Dissertations Abstracts Research Database (1861-present), Library Literature Database (December 1984-present), LISA (Library & Information Science Abstracts 1969-present), and the online public access catalogs(OPACs) for Kent State University and Cleveland Public Library.

The project was started with a search of the Kent State University research paper database. No similar topics were located associated with corporate libraries in this database so the search turned to online sources using the words and variations of corporate or company libraries and surveys.

A search of Dissertations Abstracts Research Database (1861-present) led to many topics which covered corporate libraries. A thesis by Christina Marie Langhorst of eighteen responding corporate libraries in the Dallas-Fort Worth area provided historical information. She selected twenty-six libraries that had the same librarian over the period 1981 to 1991 to survey for her study of changing services for this ten year period. Langhorst discovered that in these libraries, library services that were most time consuming such as abstracting, photocopying and research report writing decreased. The only service that every library offered was reference service. Services showing little or no change included circulation, reference, interlibrary loan, purchasing, records management and corporate archival services, translation, bibliographic services and acquisitions bulletins services.

Increases of service occurred in those services related to the increased use of technology within the library. This is the time when many company libraries began automating and performing

online searches. Accordingly, the largest increases in service were found in database creation, external database searching, internal database searching, end-user training, indexing, and SDI/current awareness services. [5]

Another thesis on company library automation is a survey of fifteen libraries found at chemical companies in Ohio by Krystal K. Slivka. She sent out thirty-six questionnaires and eighteen were returned with three not meeting the requirements of her study. She discovered that most of these libraries started automating in the 1980s. Eighty-five percent of this group have an OPAC which was installed in 1987 or after.[6] According to her survey, 13 libraries or eighty-seven percent of the group of chemical libraries have automated with computers or microcomputers. These papers are all somewhat relevant to the of characteristics of corporate libraries but have been limited by the use of cluster sampling of geographic areas rather than representing all of the corporate libraries found in the United States.

Vinita Rawson Singh focused on corporate libraries and their use of the internet in a 1994 thesis which was modeled on the 1991 study "The Internet and Special Librarians: Use, Training and the Future" by Ladner and Tillman. Singh found that most of the corporate librarians surveyed got their internet connections after 1991. The population for the survey was derived from the listing of email addresses found in the SLA annual directory. The survey was mailed online with most of them returned through email which proved time saving for the author for both input and control. Singh found that of twenty-three respondents, twenty-six percent had one year or less of experience using the internet, thirty percent had two years experience, twenty-six percent had five years of experience and some had ten years of experience. All of the libraries used email.[7]

Of greater interest to the topic of corporate library characteristics, was a 1960 doctoral

thesis that was later printed as a book by Anthony Kruzas.[8] He identified the early members that were in the original Directory of Special Libraries and all company libraries that were formed before 1940 in the United States. A valuable comparison was made to tables he compiled from a variety of historical directories for his book, Business and Industrial Libraries in the United States, 1820-1940.[9] In this book, Kruzas discusses how company libraries began and provides historical information by using case studies of early libraries. Tables from his book can be found in the appendix including those providing a numerical distribution of special libraries by type, the distribution of company libraries by date of establishment and the distribution of company libraries by state.

Anthony Kruzas proved to be a prolific author in this subject area and it is possible to trace his professional life by viewing the Kent State University OPAC. It begins with his doctoral dissertation in 1960 at the University of Michigan, moves to his work in 1965 for the Special Libraries Association when he was an associate professor of library science at the University of Michigan, and on to his work and editing skills with Gale Research. His 1963 work[10] serves to update his 1960 thesis by providing more recent information on special libraries. Using questionnaire responses of a national census of Special Libraries taken between August 1961 and February 1962, Kruzas created the May 1963 Directory of Special Libraries and Information Centers. He added to his list by notifying non-respondents by telephone to make a list of 10,000 entries. When the libraries found in Canada were eliminated, there were 8,553 libraries located in the United States which Kruzas analyzed. Questions answered included date founded, composition of staff, main subject collection, size of holdings, and number of periodical subscriptions. Libraries were divided into five main organization categories as defined by type of special library: college and

university, company, government agency, public library , or other. Company libraries made up twenty -five percent of this group and were further arranged into type of business for this 1963 work: advertising agency, banks, commercial services, insurance companies, law firms, manufacturing companies, merchandising firms, public utilities, publishing firms and newspapers, technical services and other.

A search of Library Literature Database (December 1984-present) provided an abundance of articles detailing the formation of specific or clustered samples of corporate libraries. Many of these research papers discussed the previously cited 1960, 1963, and 1965 works by Anthony Kruzas. Carol Tenopir cites the 1960 paper in her comparison of corporate and library founding dates for eighteen libraries formed between 1910 and 1921. Using the 1921 *Special Libraries Directory,* Tenopir chose seventy-seven manufacturing and industrial company libraries or 6% of the total. Some of these were eliminated from the study because their date of library formation preceded the 1910 date of the first published directory. Also excluded were two libraries that served only recreational purposes. The study was further narrowed to those companies for which financial information was available leaving eighteen companies of various sizes and manufacturing businesses.

Tenopir was interested in the age of the company at the time they formed a library and analyzed the net income or profit for a period of years to discover if there was a trend. One half of the libraries were founded between 1919 and 1921. All except one company were founded before 1910 and Tenopir found that the average age for this group was twenty-one years before it established a library. Net income/profit varied from showing large profits to large losses for the five year period preceding library formation. The average was an increase in net income of seventy

percent. In addition, there was often a change in management and an addition of officers both at the vice-president level. [11]

Edythe Moore used Kruzas's 1965 book in her paper tracing the history and formation of corporate libraries. Many historians placed mercantile and mechanic libraries as the forerunner of corporate libraries but Moore agrees with Kruzas that most company libraries were begun as working collections of information acquired to help run the business. She provides historical information from pioneer libraries of one hundred years ago and their librarians. In this paper, she then traces how and why company libraries changed up to World War II and beyond through the 1980s.[12] These two works provide excellent historical background but do not provide current statistical information of the total population of corporate libraries.

The OPAC at Cleveland Public Library identified two recent works by Tobi Brimsek. She surveyed corporate libraries in 1989 and profiled business and trade association libraries in 1991. From the Top: Profiles of U.S. and Canadian Corporate Libraries and Information Centers is representative of forty corporations chosen from the Forbes 500s' Annual Directory (1988). She sent out eighty questionnaires and used forty responses of the forty-five received. Brimsek defined the "corporate library/information center... as the facility within or geographically proximate to the corporate headquarters of the organization. Departmental libraries were specifically excluded." [13] She used the profiles she created to provide statistics for her study.

Questions answered included job title, educational background and continuing education of respondent, founding date of corporation, staff size and composition, user population, and library funding. Statistics are also provided for collection size and annual acquisitions. Brimsek found that eighty-two percent of respondents have an MLS degree with an average of 16 years of experience.

They have been at their present position for an average of 6 years and 100% belong to a professional organization. Founding dates often exceed the formation of the library or information center from ten to nearly two hundred years. All but one of the responding libraries are automated. She cautions that despite the statistics, not all of the libraries are comparable because they are considered special libraries each with their own specialized subjects, areas of expertise, goals and orientations.

III. METHODOLOGY

Corporate libraries were identified using the DIALOG Database American Library Directory (File 460). In this database, libraries are identified as special, armed forces, junior college, law, medical, religious, public, college & university, and government. Only library types designated as special were selected in order to keep out business libraries at colleges, universities or public libraries that are not relevant to this report. A preliminary search identified over 9,000 corporate libraries to be analyzed for pertinence.

The information of the identified corporate libraries was downloaded from the database onto a computer file in order to conserve online expense charges. The information was analyzed in the computer file and coded in order to do a content analysis in selected categories. These categories are: age of library, gender of library supervisor, type of library, and library state location, number of periodical subscriptions, library automation and online network participation.

After the data was coded, the information was sorted using Corel Window software. Corel Quattro Pro software package was used to analyze the information to draw conclusions and show relationships in the population of corporate libraries. Libraries less than eleven years old were identified, libraries that were eleven to fifty years old, fifty-one to one hundred years old, and those that were more than one hundred years old. In addition, information collected was analyzed on the state level and compared to the table 'Distribution of Company Libraries by State, To 1940' found in Kruzas's book to identify states with increased growth. [14] Periodical subscriptions for company libraries were compared to a 1965 compilation to determine if increased costs of subscriptions had any effect on holdings. [15]

Limitations of the Study

The major limitation of this report is the accuracy of the search in the DIALOG American Library Directory Database which aimed at both high recall and high precision. This study profiles the entire population of corporate libraries listed as special. If a library is not a member of the American Library Association, it is not listed in the American Library Directory nor in this study. According to Mark Serepca, there are 15,000 members of the Special Libraries Association in sixty countries and half of these are employed by corporations and private companies. [16] The number of corporate libraries was determined to be over 9,000 by a preliminary search. A high number is important in order to facilitate an accurate comparison within each age group and state for the study. For this report, it proved to be too high of a number so a sample of the population was used. The search results were separated into two parts by libraries found in Canada and Mexico. All of the libraries found before the split were coded and every tenth library from the second half was included if it was not located in Canada or Mexico. If the tenth library was located in Canada, the library before or after was alternately used for this study. Caution is still needed for even a large sample size can sometimes be inadequate to keep a study accurate.

IV. ANALYSIS OF DATA

The original search of 9,553 special libraries was divided into four groups. The 1,260 Canadian libraries, thirty-one Mexican libraries and two duplicates were removed leaving a group of 8,260 libraries. Similarly, when Kruzas created his special library directory in 1963, the 10,000 libraries he started with were reduced to 8,533 libraries located in the United States after removing those found in Canada. Over half of the 9,553 remaining libraries or 4,502 were analyzed. They were designated into fifteen groups and compared to Kruzas' study of 1909-1957 special libraries in Table 1. Due to the various ways that corporate libraries began, it is sometimes difficult to

Table 1: Distribution of Special Libraries by Type of Organization, 1996, 1957 and To 1909[17]

Group	1996		1909		1957	
	f	%	f	%	f	%
1. Commercial and Industrial firms	1417	31.5	5	8.9	1023	41.3
2. Newspapers and publishing companies	248	5.5	3	5.4	156	6.3
3. Business and trade associations	205	4.6	6	10.7	91	3.7
4. Scientific societies and institutions	155	3.4	2	3.6	61	2.5
5. Civic-social-religious organizations	170	3.8	0	0.0	274	11.0
6. Historical societies	84	1.9	0	0.0	130	5.2
7. Law firms and associations	366	8.1	0	0.0	2	0.1
8. Public libraries	9	0.2	17	30.4	19	0.8
9. Municipal agencies	25	0.5	4	7.1	15	0.6
10. State agencies	71	1.6	9	16.0	61	2.5
11. Federal agencies	87	1.9	2	3.6	418	16.8
12. Colleges and universities (education)	193	4.3	5	8.9	58	2.3
13. Museums	75	1.7	1	1.8	87	3.5
14. Hospitals	1269	28.2	0	0.0	2	0.1
15. Miscellaneous and undetermined	128	2.8	2	3.6	83	3.3
Total	4502	100.0	56	100.0	2480	100.0

assign them into groups. Should a library be designated a law library or an insurance library if it is the law library of an insurance company?

Because this study was interested in corporate libraries, an attempt was made to exclude other types of special libraries during the search. Using Boolean search terms eliminated 1408 junior colleges, 1004 libraries listed as historical, 4304 colleges and universities, 10013 public, 1260 religious, 2328 government, 10867 museums, and 419 from the armed forces. This accounts for the drop in percentage of these types of libraries when compared to the 1909 or 1957 list. The areas of highest growth were for hospitals, commercial and industrial firms, and the addition of law firms and associations. Commercial and industrial firms grew in importance since the beginning of the 20th century. Kruzas Table 2 shows them growing from 8.9 percentage in 1909 to 25.1 percentage of the total of 1935 and 41.3 percentage of the total in 1957.[18]

Table 2: Comparison of Company Libraries by Type of Organization, 1996 to 1909

Type	1909		1996	
	f	%	f	%
Commercial banks	2	1.8	23	1.6
Investment-banking firms	16	14	46	3.3
Consulting and engineering firms	13	11.4	123	8.7
Insurance Companies	10	8.8	70	4.9
Manufacturing companies-pharmaceutical	9	7.9	81	5.8
Manufacturing companies-chemical	6	5.3	148	10.4
Manufacturing companies-miscellaneous	28	24.6	603	42.5
Public utility companies	18	15.8	67	4.7
Merchandising firms	3	2.6	5	0.4
Accounting firms	2	1.7	27	1.9
Business services	7	6.1	158	11.2
Entertainment			23	1.6
Undetermined commercial and industrial			43	3
Total	114	100	1417	100

While the total growth of company libraries has increased by 12.4% overall, not all types have increased at this average rate. Libraries for merchandising firms have shown the smallest growth from only three to five companies. Manufacturing companies- chemical and -miscellaneous have shown the greatest growth. Part of this can be attributed to the increased size of companies in the United States with each division and building or floor having its own library. Hughes Aircraft in California has multiple locations in five cities, each with its own library. Other companies have similar arrangements, somewhat skewing the results for manufacturing companies but this is not a new phenomenon. Even before 1940, departments of a company frequently started separate libraries for research or business which Kruzas also counted separately. In 1963, Kruzas found that "The country's 30 largest industrial firms taken from the 1963 list published by *Fortune Magazine* supported a total of 310 special libraries for an average of ten each. General Electric Corporation had 47, the largest number for any one corporation."[19] These corporate libraries sometimes form their own network, are linked together and share resources. One soon comprehends why Tobi Brimsek chose to survey only corporate headquarters libraries for her report.

Table 3 shows the distribution of company libraries by age. There were only three libraries that listed their age as less than eleven years old but this is partially explained by the number of libraries that do not list a date: 377 or over one quarter of the total. The founding date of a company library is often rather amorphous as there is no standard definition for it. Some libraries give the founding date of the corporation when collections started to accumulate or the date a professional librarian was first hired. It is no wonder that so many libraries leave the date blank, Kruzas found that the date can vary with each librarian in charge.[20] Of the thirteen libraries that are over 100 years old, three are located in Pennsylvania, two are in New York State, and there is one

in California, Connecticut, Idaho, Illinois, Indiana, Michigan, South Carolina, and Wisconsin. Kruzas discusses the formation of the three pharmaceutical companies; Abbott Laboratories in Chicago, Eli Lilley in Indianapolis and Parke, Davis and Company in Detroit; all around the same time and for similar purposes.[21]

Table 3: Age of Company Libraries by Type, 1996

Type	Age In Years					
	<11	11-50	51-100	>100	not dated	total
Commercial banks		7	8	1	7	23
Investment-banking firms		27	12	2	5	46
Consulting and engineering firms		70	15		38	123
Insurance Companies		30	15	3	22	70
Manufacturing companies-pharmaceutical		45	18	4	14	81
Manufacturing companies-chemical	1	80	30		37	148
Manufacturing companies-miscellaneous	2	352	111	3	135	603
Public utility companies		31	17		19	67
Merchandising firms		3	1		1	5
Accounting firms		14	4		9	27
Business services		84	26		48	158
Entertainment		11	7		5	23
Undetermined commercial and industrial		6			37	43
Total	3	760	264	13	377	1417
percentage of total	0.2	53.7	18.6	0.9	26.6	100

The comparison of distribution of company libraries by state 1996 to 1940 is shown as Table 4. The largest change was downward for New York State. Although the total of libraries sampled for the state nearly doubled, the percentage of its whole total fell from 34.5% to 13.5%.

Other states that showed decreases were Pennsylvania and New Jersey. The states with the largest increases were California (with its multiple libraries for businesses such as Hughes Aircraft), Texas, the District of Columbia, and Florida. All of the states showing increases in population percentages increased their percentages of corporate libraries. The District of Columbia did not change markedly for population or percentage but its increase in libraries could be explained by its location as the nation's capital. This explanation does not cover New Jersey's decline in library percentage as its percentage of population also remained about the same.

The 4502 libraries were analyzed to determine if there were any trends of gender by library type in Table 5. Unfortunately, the accuracy of this chart is not very reliable. Many librarians chose to provide only an initial instead of a first name and some names can belong to either gender, e.g. Lynn or Pat or Jan. This resulted in the large percentage classified as not determined, with an average of 9.6%. The percentage of male supervisors never surpassed the percentage of female supervisors in any of the categories. The two closest percentages for male/female are historical libraries with 41.7% and 50% respectively and manufacturing-pharmaceuticals with 41.3% and 49.7%. The total average of female head librarians came very close to the 64.2 percentage reported by Anthony Kruzas but the percentage of male head librarians was much less than the 35.8 percentage he found for company libraries in 1963.[22] This contrasts with the percentage of male/female 1994 graduates of library schools which is roughly 19.4%/80.6%. [23] Perhaps this inequality should be further explored with more historical information.

Table 4: Distribution of Company Libraries by State, 1996 and To 1940

state or territory	1940[24]		1996	
	f	%	f	%
Alabama	4	0.4	24	0.5
Alaska			3	0.1
Arizona			46	1
Arkansas			12	0.3
California	73	7.2	493	11
Colorado	3	0.3	78	1.7
Connecticut	34	3.4	110	2.4
Delaware	13	1.3	27	0.6
District of Columbia	5	0.5	175	3.9
Florida			97	2.2
Georgia	4	0.4	60	1.3
Hawaii			26	0.6
Idaho			16	0.4
Illinois	78	7.7	294	6.5
Indiana	19	1.9	92	2.1
Iowa	2	0.2	45	1
Kansas	1	0.1	32	0.7
Kentucky	2	0.2	30	0.7
Louisiana	2	0.2	30	0.7
Maine	1	0.1	28	0.6
Maryland	9	0.9	109	2.4
Massachusetts	70	6.9	196	4.4
Michigan	41	4	141	3.1
Minnesota	12	1.2	88	2
Mississippi			13	0.3
Missouri	17	1.7	75	1.7
Montana			18	0.4
Nebraska			6	0.1
Nevada			11	0.2
New Hampshire	1	0.1	19	0.4
New Jersey	66	6.5	172	3.8
New Mexico			18	0.4
New York	348	34.5	609	13.5
North Carolina			69	1.5
North Dakota			13	0.3
Ohio	55	5.4	208	4.6
Oklahoma	3	0.3	33	0.7
Oregon	6	0.6	36	0.8
Pennsylvania	95	9.4	289	6.4
Rhode Island	5	0.5	24	0.5
South Carolina	1	0.1	28	0.6
South Dakota			9	0.2
Tennessee	3	0.3	47	1.1
Texas	7	0.7	181	4
Utah			12	0.3
Vermont			22	0.5
Virginia	3	0.3	127	2.8
Washington	2	0.2	64	1.4
West Virginia	4	0.4	28	0.6
Wisconsin	21	2.1	108	2.4
Wyoming			4	0.1
Puerto Rico			5	0.1
Virgin Islands			2	0.1
total	1010	100	4502	100

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Table 5: Gender of Supervisors by Library Type, 1996

Library type	female		male		not determined		total	
	f	%	f	%	f	%	f	%
business services	127	68.7	38	20.5	20	10.8	185	100
business trade	136	66.3	52	25.4	17	8.3	205	100
commercial bank	18	78.3	2	8.7	3	13	23	100
consulting and engineering	84	68.3	22	17.9	17	13.8	123	100
miscellaneous commercial	26	60.5	12	27.9	5	11.6	43	100
civic-social-religious	102	60	47	27.6	21	12.4	170	100
education, college	130	67.4	44	22.8	19	9.8	193	100
entertainment	10	43.5	9	39.1	4	17.4	23	100
federal agency	49	56.3	25	28.7	13	15	87	100
foreign embassy	5	62.5	1	12.5	2	25	8	100
health	1035	81.6	146	11.5	88	6.9	1269	100
historical	43	51.2	36	42.9	5	5.9	84	100
investment-banking firms	38	82.6	6	13	2	4.4	46	100
insurance companies	54	77.2	12	17.1	4	5.7	70	100
law	267	73	81	22.1	18	4.9	366	100
municipal agencies	16	64	6	24	3	12	25	100
manufacturing-chemicals	108	73	23	15.5	17	11.5	148	100
merchandising firms	5	100	0	0	0	0	5	100
miscellaneous and undetermined	76	63.3	25	20.9	19	15.8	120	100
manufacturing-miscellaneous	430	71.3	101	16.8	72	11.9	603	100
manufacturing-pharmaceuticals	64	79	12	14.8	5	6.2	81	100
museums	39	52	33	44	3	4	75	100
newspaper & publishing	163	65.7	67	27	18	7.3	248	100
public libraries	7	77.8	2	22.2	0	0	9	100
public utilities	47	70.1	13	19.4	7	10.5	67	100
state agencies	36	50.7	23	32.4	12	16.9	71	100
scientific societies & institutions	102	65.8	41	26.5	12	7.7	155	100
grand total	3217	71.5	879	19.5	406	9	4502	100
average		1830.1/27 =67.8		601.2/27 =22.3		268.7/27 =9.9		100

Table 6 : Library Automation by Library Type.

Type	Computer automation not cnline participation		Computer automation with network participation		No computer automation or network participation		No computer automation with network participation		Total
	f	%	f	%	f	%	f	%	f
Commercial banks	1	4.4	5	21.7	9	39.1	8	34.8	23
Investment-banking firms	5	10.9	21	45.6	16	34.8	4	8.7	46
Consulting and engineering firms	2	1.6	53	43.1	49	39.8	19	15.5	123
Insurance companies	5	7.1	27	38.6	32	45.7	6	8.6	70
Manufacturing companies-pharmaceutical	4	4.9	42	51.9	17	21.0	18	22.2	81
Manufacturing companies-chemical	5	3.4	69	46.6	50	33.8	24	16.2	148
Manufacturing companies-miscellaneous	23	3.8	265	44.0	222	36.8	93	15.4	603
Public utility companies	5	7.5	32	47.8	21	31.3	9	13.4	67
Merchandising firms	1	20.0	0	0.0	3	60.0	1	20.0	5
Accounting firms	1	3.7	15	55.6	8	29.6	3	11.1	27
Business services	8	5.1	60	38.0	71	44.9	19	12.0	158
Entertainment	1	4.3	4	17.4	16	69.6	2	8.7	23
Undetermined commercial and industrial	0	0.0	5	11.6	34	79.1	4	9.3	43
Total	61	4.3	598	42.2	548	38.7	210	14.8	1417
Average %		76.7/13 =5.9		461.9/= 35.5		565.5/= 43.5		195.9/13 =15.1	

Table 7: Computer Automation of Total Sample

Automation	f	%
Computer automation but no online or network participation	196	4.4
Computer automation with online abilities/network participation	1577	35.0
No computer automation, online abilities or network participation	1911	42.4
No computer automation with online abilities/network participation	818	18.2
Total	4502	100.0

Table 8: Serial Subscriptions Reported for all Library Types

Serial subscriptions	Number of libraries	Percentage of libraries
0	949	21.1
1-50	744	16.5
51-100	602	13.4
101-150	464	10.3
151-200	372	8.3
201-250	264	5.9
251-300	223	4.9
301-350	154	3.4
351-400	152	3.4
401-450	97	2.2
451-500	101	2.2
501-600	81	1.8
601-700	72	1.6
701-800	41	0.9
801-900	28	0.6
901-1000	38	0.8
1001-2000	75	1.7
2001-10,000	32	0.7
over 10,000	13	0.3
Total	4502	100.0

Table 9 : Comparison of 1996 and 1965 Periodical Subscriptions for Company Libraries

Periodical subscriptions	1996		Periodical subscriptions	1965	
	f	%		f[1]	%[2]
0	214	15.1			
1-50	184	13.0	0-49	195	14.5
51-100	171	12.1	50-99	251	18.7
101-150	147	10.4			
151-200	138	9.8	100-199	397	29.4
201-250	108	7.6			
251-300	89	6.3	200-299	208	15.4
301-350	60	4.2			
351-400	69	4.9	300-399	121	9.0
401-450	40	2.8			
451-500	35	2.5	400-499	66	4.9
501-600	38	2.7	500-599	39	2.9
601-700	30	2.1	600-699	26	1.9
701-800	16	1.1	700-799	10	0.7
801-900	16	1.1	800-899	15	1.1
901-1000	19	1.3	900-999	7	0.5
1001-2000	33	2.3	1000-1499	7	0.5
			1500-1999	6	0.4
2001-10,000	6	.4	2000-2999	2	0.1
over 10,000	4	.3	over 10000	0	0.0
Total	1417	100.0		1350	100.0

[1]Source: Anthony Thomas Kruzas, Table 15 in *Special Libraries and Information Centers* (Detroit: Gale Research Company, 1965), 32.

[2]Ibid., Table 16, 33.

Table 10 : Serial subscriptions by type of Library.

Periodical subscriptions	Comm-ercial banks		Invest-ment banks		Consult-ing and engineer		Insurance companies		Mfg-pharm-aceuticals		Mfg-chemical		Mfg-misc.		Public utilities		Merchan-dising firms		Acct. Firms		Business services		Enter-tainment		Comm-ercial & industrial		Total
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	
0	3		6		13		18		6		16		87		10		0		3		29		10		13		214
1-50	3		3		25		10		4		14		72		7		1		2		26		6		11		184
51-100	5		3		17		4		7		22		81		7		1		3		13		2		6		171
101-150	1		0		16		8		6		18		66		8		0		2		12		1		9		147
151-200	2		2		20		7		5		20		55		3		1		2		16		2		3		138
201-250	1		6		6		4		8		13		47		9		0		2		12		0		0		108
251-300	1		4		7		7		3		3		46		2		1		5		9		0		1		89
301-350	0		0		5		3		3		10		21		6		0		2		10		0		0		60
351-400	1		5		1		3		4		9		30		3		0		3		9		1		0		69
401-450	1		1		1		2		7		2		18		2		0		1		5		0		0		40
451-500	0		3		3		0		4		5		12		1		1		1		4		1		0		35
501-600	1		1		1		1		4		4		18		3		0		1		4		0		0		38
601-700	1		3		2		0		3		4		13		2		0		0		2		0		0		30
701-800	1		0		0		1		3		2		7		2		0		0		0		0		0		16
801-900	0		3		0		1		2		2		8		0		0		0		0		0		0		16
901-1000	1		3		1		1		3		1		7		0		0		0		2		0		0		19
1001-2000	1		3		4		0		8		3		12		0		0		0		2		0		0		33
2001-10,000	0		0		0		0		0		0		2		1		0		0		3		0		0		6
over 10,000	0		0		1		0		1		0		1		1		0		0		0		0		0		4
	23		46		123		70		81		148		603		67		5		27		158		23		43		1417

V. SUMMARY AND CONCLUSIONS

Special Libraries in corporations are responsible for many of the duties other types of libraries fulfill. The librarians select material, catalog it, provide information storage and retrieval, provide professional information through literature searches or reference service for scientific investigations. Physically and operationally they are similar to other library types. The largest difference is found in the philosophy or objectives for corporate libraries where the flow of information is more important than its storage. Kruzas states, " company libraries have their own essential individuality. Each library reflects the activities and policies of its own company."[25] This is true due in part to the way most corporate libraries began, many evolved gradually and informally as a place to organize books and to consolidate records and reports.

The majority of libraries, 53.7 % in the study were formed after World War II, between 1947 and 1986. Kruzas found the time between 1940 and 1959 to be the period of greatest formation of company libraries.[26] Company libraries may serve a geographic area or specialize in a subject. Oftentimes a library may start small with a few stacks of books and vertical files but it grows in order to fulfill its objectives. Kruzas demonstrated growth in collection size, staffing numbers and periodical subscriptions in his historical analysis of how the United Aircraft Company in East Hartford, Connecticut grew from four book stacks in 1930 to nine libraries and 64 employees in 1960.[27] Similarly, the number of company libraries and their collections have grown in the United States.

The number of libraries per state can be correlated to the change in percentage of population per state. Generally if the percentage of population increases, the number of libraries increases. Conversely, if the percentage of population declines, the percentage of libraries per state declines.

Not only was there a change in population with a strong growth after World War II, the distribution changed. People flocked to cities in states such as California and Florida where the large influx of people matched the growth in industries.

Corporate libraries are automating their services just as other types of libraries are. At this time, less than half of the total sample of libraries or thirty-five percent show automation with online abilities and 4.4% have automated without online abilities as shown in Table 7. When corporate libraries are isolated from the total, the average remains similar with 34.2% automation and online abilities and 7.2% automated without online abilities. However, averages by type of business as found in Table 6 do not always follow this pattern. Companies with over fifty percent automation include investment banking firms, manufacturers of pharmaceuticals, chemical manufacturers, public utility companies, and accounting firms. Companies with the least amount of automation are merchandising firms, entertainment, and undetermined commercial and industrial. It would be interesting to track this for future changes in automation services.

Another phenomenon of interest is the slight increase in periodical subscriptions shown in Table 8, although the 1996 scale differs slightly from the 1965 scale. In 1996 the high number of libraries reporting 0 subscriptions is significant, representing 15.1% so this number was recorded separately when collecting the data. It is not clear if those libraries without subscriptions were included in the 1965 survey. Despite the rising costs of periodical subscriptions, holdings have increased slightly since 1965. At that time, sixty-two percent of the libraries held fewer than 200 subscriptions, seventy-eight percent held fewer than 300 subscriptions and eighty-seven percent had fewer than 400 subscriptions. In 1996, 60.4% reported 200 or fewer subscriptions, 74.3% held 300 or fewer subscriptions and 83.4% showed 400 or fewer subscriptions. The subscriptions at the high end are slowly increasing with four companies recording over 10,000 subscriptions as compared to 0 that Kruzas reported in 1965.

APPENDIX A

CODING FOR PROFILES OF CORPORATE LIBRARIES

Automation _____ *Periodical subscriptions* _____

*DIALOG Search No.*_____*Library type*__*State*__*Gender*__*Date founded*_____

*Official Name*_____

Computer automation (variable name=1 digit alphabetic)

_____ c=computer automation; n=not computer automated

Online searching and network participation (variable name=1 digit alphabetic)

Number of serials subscriptions (variable name=6 digit numeric)

_____ actual number recorded, if none use 0

_____ n=not online and no network participation reported, o= online and/or network participation

Geographic Code (variable name= 2 digit post office alphabetic)

_____ al=Alabama; ak=Alaska; az=Arizona, =Arkansas; ca=California; co=Colorado; ct=Connecticut; de=Delaware; dc=District of Columbia; fl=Florida; ga=Georgia; hi=Hawaii; id=Idaho; il=Illinois; in=Indiana; ia=Iowa; ks=Kansas; ky=Kentucky; la=Louisiana; me=Maine; md=Maryland; ma=Massachusetts; mi=Michigan; mn=Minnesota; ms=Mississippi; mo=Missouri; mt=Montana; ne=Nebraska; nv=Nevada; nh=New Hampshire; nj=New Jersey; nm=New Mexico; ny=New York; nc=North Carolina; nd=North Dakota; oh=Ohio; ok=Oklahoma; or=Oregon; pa=Pennsylvania; ri=Rhode Island; sc=South Carolina; sd=South Dakota; tn=Tennessee; tx=Texas; ut=Utah; vt=Vermont; va=Virginia; wa=Washington; wv=West Virginia; wi=Wisconsin; wy=Wyoming; pr=Puerto Rico; vi=Virgin Islands

Special collection subject (subject) (variable name= 2 letters)

_____Bs=business service; bt=business and trade association; cb=commercial banks, ce=consulting and engineering firms; ci= undetermined commerial and industrial; cs=civic-social-religious organizations; ed=education, colleges and universities; en=entertainment; fa=federal agencies; fe=foreign embassies; he=health; hs=historical; ib=investment-banking firms; ic=insurance companies; la=law; ma=municipal agencies; mc=manufacturing companies-chemical; mf=merchandising firms; mi=miscellaneous and undetermined; mm=manufacturing companies- miscellaneous; mp=manufacturing companies- pharmaceutical; mu=museums; np=newspapers and publishing; pl=public libraries; pu=public utilities; sa=state agencies; ss=scientific societies and institutions

Gender of library supervisor (variable name=1 letter)

____ b=both male and female; f=female; m=male; n= not available

Date founded (4 digit number)

_____ year

Official Name (variable name=76 digit alphanumeric)

_____

APPENDIX B

TABLES COMPILED BY ANTHONY KRUZAS

Table 1: Numerical Distribution of Special Libraries by Type of Organization, 1909-1957

Group	1909[1]	1910[2]	1913[3]	1953[4]	1957[5]
1. Commercial and industrial firms	5	14	46	874	1023
2. Newspaper and publishing companies	3	4	7	96	156
3. Business and trade associations	6	4	9	67	91
4. Scientific societies and institutions	2	17	4	51	61
5. Civic-social-religious organizations	-	11	6	103	274
6. Historical societies	-	1	1	14	130
7. Law firms and associations	-	-	-	16	2
8. Public libraries	17	12	54	123	19
9. Municipal agencies	4	5	2	19	15
10.State agencies	9	23	31	59	61
11.Federal agencies	2	6	4	223	418
12. Colleges and universities	5	5	42	473	58
13. Museums	1	5	1	27	87
14. Hospitals	-	-	-	90	2
15. Miscellaneous and undetermined	2	1	33	35	83
Total	56	108	240	2270	2480

Source: Anthony Thomas Kruzas, *Business and Industrial Libraries in the United States: 1820-1940* (New York: Special Libraries Association, 1965), 12-13.

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[1]Special Libraries Association, charter Members Lists, 1909.

[2]Directory of Special Libraries, 1910

[3]Membership of Special Libraries Association, 1913

[4]*Directory of Special Libraries*, 1953

[5]*American Library Directory*

Table 2: Percentage Distribution of Special Libraries by Type of Organization, 1909-1957

Group	1909	1910	1913	1953	1957
1. Commercial and industrial firms	8.9	13.0	19.2	38.5	41.3
2. Newspaper and publishing companies	5.4	3.7	2.9	4.2	6.3
3. Business and trade associations	10.7	3.7	3.8	2.9	3.7
4. Scientific societies and institutions	3.6	15.7	1.7	2.6	2.5
5. Civic-social-religious organizations	-	10.3	2.5	4.5	11.0
6. Historical societies	-	0.9	0.4	0.6	5.2
7. Law firms and associations	-	-	-	0.7	0.1
8. Public libraries	30.4	11.1	22.5	5.4	0.8
9. Municipal agencies	7.1	4.6	0.8	0.8	0.6
10. State agencies	16.0	21.3	12.9	2.6	2.5
11. Federal agencies	3.6	5.6	1.7	9.8	16.8
12. Colleges and universities	8.9	4.6	17.5	20.8	2.3
13. Museums	1.8	4.6	0.4	1.2	3.5
14. Hospitals	-	-	-	3.9	0.1
15. Miscellaneous and undetermined	3.6	0.9	13.7	1.5	3.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Anthony Thomas Kruzas, *Business and Industrial Libraries in the United States: 1820-1940* (New York: Special Libraries Association, 1965), 14-15.

Table 6: Distribution of Company Libraries by State, To 1940

	Number	Percentage
Alabama	4	.4
California	73	7.2
Colorado	3	.3
Connecticut	34	3.4
Delaware	13	1.3
District of Columbia	5	.5
Georgia	4	.4
Illinois	78	7.7
Indiana	19	1.9
Iowa	2	.2
Kansas	1	.1
Kentucky	2	.2
Louisiana	2	.2
Maine	1	.1
Maryland	9	.9
Massachusetts	70	6.9
Michigan	41	4.0
Minnesota	12	1.2
Missouri	17	1.7
New Hampshire	1	.1
New Jersey	66	6.5
New York	348	34.5
Ohio	55	5.4
Oklahoma	3	.3
Oregon	6	.6
Pennsylvania	95	9.4
Rhode Island	5	.5
South Carolina	1	.1
Tennessee	3	.3
Texas	7	.7
Virginia	3	.3
Washington	2	.2
West Virginia	4	.4
Wisconsin	21	2.1
Total	1,010	100.0

Source: Anthony Thomas Kruzas, *Business and Industrial Libraries in the United States: 1820-1940* (New York: Special Libraries Association, 1965), 82.

Table 15 - NUMBER OF PERIODICAL SUBSCRIPTIONS BY TYPE OF ORGANIZATION

PERIODICAL SUBSCRIPTIONS	I College and univ.	II Company	III Govt. Agency	IV Public library depts.	V Other Organi-zations	TOTAL
0-49	199	195	118	36	483	1,031
50-99	226	251	137	39	241	894
100-199	321	397	188	51	238	1,195
200-299	206	208	70	29	80	593
300-399	139	121	39	13	33	345
400-499	92	66	28	8	26	220
500-599	60	39	25	10	20	154
600-699	29	26	20	6	5	86
700-799	34	10	2	5	4	55
800-899	32	15	13	1	10	71
900-999	20	7	4	1	4	36
1,000-1,499	64	7	12	7	7	97
1,500-1,999	23	6	5	3	6	43
2,000-2,999	20	2	15	2	5	44
3,000-3,999	9	0	2	1	4	16
4,000-4,999	3	0	0	2	2	7
5,000-9,999	1	0	4	1	1	7
10,000 and over	2	0	3	1	0	6
TOTAL	1,480	1,350	685	216	1,169	4,900

TOTAL NUMBER OF LIBRARIES REPORTING NUMBER OF SUBSCRIPTIONS: 4,900

Source: Anthony Thomas Kruzas, *Special Libraries and Information Centers; a Statistical Report on Special Library Resources in the United Sates.* Detroit: Gale Research, 1963, 32.

Table 16 - PERCENTAGE DISTRIBUTION OF PERIODICAL SUBSCRIPTION BY TYPE OF ORGANIZATION

PERIODICAL SUBSCRIPTIONS	I College and univ.	II Company	III Govt. Agency	IV Public library depts.	V Other Organi-zations	TOTAL
0-49	13.3	14.5	17.3	16.6	41.4	21.1
50-99	15.2	18.7	20.0	18.1	20.7	18.3
100-199	21.7	29.4	27.4	23.6	20.4	24.5
200-299	13.9	15.4	10.2	13.4	6.8	12.1
300-399	9.4	9.0	5.7	6.0	2.8	7.0
400-499	6.2	4.9	4.1	3.7	2.2	4.5
500-599	4.1	2.9	3.6	4.6	1.7	3.1
600-699	2.0	1.9	2.9	2.8	.4	1.8
700-799	2.3	.7	.3	2.3	.3	1.1
800-899	2.2	1.1	1.9	.5	.9	1.4
900-999	1.4	.5	.6	.5	.3	.7
1,000-1,499	4.3	.5	1.8	3.2	.6	2.0
1,500-1,999	1.6	.4	.7	1.4	.5	.9
2,000-2,999	1.4	.1	2.2	.9	.4	.9
3,000-3,999	.6	.0	.3	.5	.3	.3
4,000-4,999	.2	.0	.0	.9	.2	.1
5,000-9,999	.1	.0	.6	.5	.1	.1
10,000 and over	.1	.0	.4	.5	.0	.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Source: Anthony Thomas Kruzas, *Special Libraries and Information Centers; a Statistical Report on Special Library Resources in the United Sates.* Detroit: Gale Research, 1963, 33.

Endnotes

1. Anthony Thomas Kruzas, *The Development of Special Libraries for American Business and Industry* (Ph. D. Thesis, The University of Michigan, 1960), abstract in Dissertations Abstracts Research Database, October 1996. (Ann Arbor, Mich.: University Microfilms, 1960), 361.

2. Anthony Thomas Kruzas, *Business and Industrial Libraries in the United States: 1820-1940* (New York: Special Libraries Association, 1965), 12.

3. Ibid., Table 6, 82.

4. Ibid., 12.

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25. Kruzas, *Business and Industrial Libraries in the United States*, 86.

26. Kruzas, *Special Libraries and Information Centers; a Statistical Report*, 15.

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